

Abstract

Method for fabricating a reference layer and MRAM memory cell provided with a reference layer of this type

The invention relates to a method for fabricating a reference layer for MRAM memory cells and an MRAM memory cell equipped with a reference layer of this type. A reference layer of this type comprises two magnetically coupled layers having a different Curie temperature. When cooling from a temperature above the Curie temperature T_c^1 of the first layer (10) in an external magnetic field, the magnetization of the second layer (11) is oriented by a second-order phase transition along the field direction of the external magnetic field. Upon further cooling below the Curie temperature T_c^2 of the second layer (11), the latter is oriented antiparallel with respect to the first layer (10) as a result of the antiferromagnetic coupling between the two layers.

(Fig. 2A)